

1 The listing of claims below will replace prior versions of claims in the
2 application:

3
4 ~~1. (CURRENTLY AMENDED) An apparatus comprising:~~
5 ~~a first device;~~
6 ~~a first connector coupled to the first device;~~
7 ~~a second connector coupled to the first connector through a first plurality of~~
8 ~~conductors, wherein alternating pairs of conductors are reversed at any position~~
9 ~~between the first and second connectors; and~~
10 ~~a second device coupled to the second connector through a second plurality~~
11 ~~of conductors.~~

12
13 2. (ORIGINAL) An apparatus as recited in claim 1 wherein the first
14 device includes a plurality of differential drivers.

15
16 3. (ORIGINAL) An apparatus as recited in claim 1 wherein the second
17 device includes a plurality of differential receivers.

18
19 4. (ORIGINAL) An apparatus as recited in claim 1 wherein the first
20 device is an integrated circuit.

21
22 5. (ORIGINAL) An apparatus as recited in claim 1 wherein the first
23 device is an integrated circuit disposed on a substrate, wherein the substrate is
24 electrically coupled to the integrated circuit and the first connector.
25

1 6. (ORIGINAL) An apparatus as recited in claim 1 wherein the second
2 device is an integrated circuit.

3
4 7. (ORIGINAL) An apparatus as recited in claim 1 wherein the first
5 device has an inductive coupling coefficient substantially the same as the
6 inductive coupling coefficient of the second device.

7
8 8. (ORIGINAL) An apparatus as recited in claim 1 wherein the
9 alternating pairs of conductors are reversed once between the first connector and
10 the second connector.

11
12 9. (ORIGINAL) An apparatus as recited in claim 1 wherein alternating
13 pairs of conductors in the second plurality of conductors are reversed.

14
15 10. (CURRENTLY AMENDED) An apparatus comprising:
16 a first integrated circuit including a plurality of differential drivers;
17 a first connector coupled to the first integrated circuit;
18 a second connector coupled to the first connector through a plurality of
19 electrical conductors, wherein alternating pairs of the electrical conductors are
20 reversed at any position between the first and second connectors; and
21 a second integrated circuit coupled to the second connector, wherein the
22 second integrated circuit includes a plurality of differential receivers.

1 11. (ORIGINAL) An apparatus as recited in claim 10 further
2 comprising a second plurality of electrical conductors coupled between the second
3 connector and the second integrated circuit, wherein alternating pairs of the second
4 plurality of electrical conductors are reversed.

5
6 12. (ORIGINAL) An apparatus as recited in claim 10 further
7 comprising a second plurality of electrical conductors coupled between the second
8 connector and the second integrated circuit, wherein each pair of conductors
9 includes an inverted conductor and a non-inverted conductor, each inverted
10 conductor coupled to a non-inverted input of one of the differential receivers, and
11 each non-inverted conductor coupled to an inverted input of one of the differential
12 receivers.

13
14 13. (ORIGINAL) An apparatus as recited in claim 10 wherein the first
15 integrated circuit has an inductive coupling coefficient substantially the same as
16 the inductive coupling coefficient of the second integrated circuit.

17
18 14. (ORIGINAL) An apparatus as recited in claim 10 wherein the
19 alternating pairs of electrical conductors are reversed once between the first
20 connector and the second connector.

21
22 15. (CURRENTLY AMENDED) An apparatus comprising:
23 a printed circuit board;
24 a plurality of connectors disposed on the printed circuit board;
25

1 a first integrated circuit disposed on a first substrate, wherein the first
2 substrate is configured to be coupled to one of the plurality of connectors;

3 a second integrated circuit disposed on a second substrate, wherein the
4 second substrate is configured to be coupled to one of the plurality of connectors;
5 and

6 a first plurality of electrical conductors coupled to the plurality of
7 connectors, wherein alternating pairs of conductors between adjacent connectors
8 ~~have~~ are reversed polarity at a location offset toward one of the plurality of
9 connectors.

10
11 16. (ORIGINAL) An apparatus as recited in claim 15 wherein the
12 printed circuit board is a backplane.

13
14 17. (ORIGINAL) An apparatus as recited in claim 15 further
15 comprising a second plurality of conductors coupled between the first integrated
16 circuit and one of the plurality of connectors, wherein alternating pairs of
17 conductors have reversed polarity.

18
19 18. (ORIGINAL) An apparatus as recited in claim 15 wherein the first
20 substrate is a printed circuit board.

21
22 19. (ORIGINAL) An apparatus as recited in claim 15 wherein the first
23 substrate is a memory module.

1 20. (ORIGINAL) An apparatus as recited in claim 15 wherein the first
2 integrated circuit is a memory device.

3
4 21. (ORIGINAL) An apparatus as recited in claim 15 wherein the first
5 integrated circuit has an inductive coupling substantially the same as the inductive
6 coupling of the second integrated circuit.

7
8 22. (PREVIOUSLY AMENDED) An apparatus comprising:
9 a first device having an associated first inductive coupling coefficient; and
10 a second device coupled to the first device through a plurality of electrical
11 conductors, the second device having an associated second inductive coupling
12 coefficient, wherein the first inductive coupling coefficient is adjusted to be
13 substantially the same as the second inductive coupling coefficient.

14
15 23. (ORIGINAL) An apparatus as recited in claim 22 wherein the first
16 device includes a plurality of differential drivers, wherein each differential driver
17 is coupled to a pair of electrical conductors.

18
19 24. (ORIGINAL) An apparatus as recited in claim 22 wherein the
20 second device includes a plurality of differential receivers, wherein each
21 differential receiver is coupled to a pair of electrical conductors.

1 25. (ORIGINAL) An apparatus as recited in claim 22 further
2 comprising a pair of connectors coupled between the first device and the second
3 device, wherein a second plurality of electrical conductors are coupled between
4 the pair of connectors, and wherein alternating pairs of electrical conductors are
5 reversed.

6
7 26. (CURRENTLY AMENDED) A method comprising:
8 generating a plurality of differential signals;
9 transmitting the plurality of differential signals through a first connector
10 and a second connector to a plurality of differential receivers;
11 reversing the polarity of alternating differential signals at any position
12 between the first and second connectors; and
13 reversing the polarity of alternating differential signals between the second
14 connector and the plurality of differential receivers.

15
16 27. (ORIGINAL) A method as recited in claim 26 wherein the first
17 connector generated inductive coupling noise as the differential signals are
18 transmitted through the first connector.

19
20 28. (ORIGINAL) A method as recited in claim 26 wherein the second
21 connector generated inductive coupling noise opposite the noise generated by the
22 first connector as the differential signals are transmitted through the second
23 connector.
24
25

1 29. (ORIGINAL) A method as recited in claim 26 further including
2 decoding the plurality of differential signals.

3
4 30. (ORIGINAL) A method as recited in claim 26 wherein a transmitter
5 package transmits the plurality of differential signals and a receiver package
6 receives the plurality of differential signals.

7
8 31. (ORIGINAL) A method as recited in claim 30 further including
9 modifying the transmitter package such that the coupling coefficient of the
10 transmitter package is substantially the same as the receiver package.

11
12 32. (ORIGINAL) A method comprising:
13 modifying a transmitter package such that the coupling coefficient of the
14 transmitter package is substantially the same as the coupling coefficient of a
15 receiver package;

16 transmitting multiple pairs of differential signals using the transmitter
17 package; and

18 receiving the multiple pairs of differential signals using the receiver
19 package.

20
21 33. (ORIGINAL) A method as recited in claim 32 wherein the
22 transmitter package transmits multiple pairs of differential signals across a
23 plurality of conductors.
24
25

1 34. (ORIGINAL) A method as recited in claim 32 further comprising
2 decoding the multiple pairs of differential signals.

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4 35. (ORIGINAL) A method as recited in claim 32 wherein the
5 differential signals are transmitted through a pair of connectors on a plurality of
6 conductors, wherein alternating pairs of conductors are reversed between the pair
7 of connectors.

8
9 36. (NEW) An apparatus as recited in claim 1 wherein at least one pair of
10 conductors are reversed at a location offset toward the first connector and at least
11 one pair of conductors are reversed at a location offset toward the second
12 connector.

13
14 37. (NEW) An apparatus as recited in claim 10 wherein at least one pair
15 of electrical conductors are reversed at a location offset toward the first connector
16 and at least one pair of electrical conductors are reversed at a location offset
17 toward the second connector.

18
19 38. (NEW) A method as recited in claim 26 wherein reversing the polarity
20 of alternating differential signals includes reversing the polarity of at least one
21 differential signal at a location offset toward the first connector and reversing the
22 polarity of at least one differential signal at a location offset toward the second
23 connector.